Change Management

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Description: When you perform a root cause analysis of IT service interruptions one cause stands out above all others – an incorrectly made change to the IT production environment. Perhaps there was an adverse effect resulting from the change that only someone who had not been included in the planning would have known, or perhaps more than one group intended to make changes to interdependent system components that required coordination. Immediate results ensue when a rigorous Change Management Process is implemented. This process is easy to put in place, but more difficult to obtain buy-in from all involved. It is important to have all stakeholders participate. Typically, representatives from all infrastructure groups and select key customers make up the Change Management Committee. This team meets periodically (weekly is appropriate in most cases) with the singular purpose of reviewing the prior period's changes to the production environment to assess their success and to review the upcoming week's (and beyond) changes to ensure that all necessary planning and coordination has taken place. The Change Management Process is typically led by someone from the QA or Operations management team; usually the person heading up the Production Control function.

When major systems changes (either hardware, software or applications) are introduced into the production environment a "go live" meeting should be held in addition to following the normal change management process. Essentially, this entails a formal meeting prior to implementing the change in which key stakeholders review the readiness of their respective functional areas. The moderator of this meeting, typically the project manager for the major change being introduced, should obtain the explicit agreement from all stakeholders to proceed with the change. Any stakeholder has the right to "stop the production line." It is advisable to have senior executives from the IT group and from business units affected in attendance at this meeting. Using this forum ensures a greater sense of personal accountability for delivery and avoids after-the-fact second-guessing of the decision to go live.

Benefits: There are two primary benefits to a rigorous Change Management Process. First, communication of changes is enhanced and, when working properly, all who should be aware of a change taking place are notified and have a chance to provide input into the change. Second, should the change not work as planned, an immediate identification and back-out procedure is pre-defined, minimizing the impact of the error. In addition, all changes can be fed into dependent infrastructure processes (e.g. Disaster Recovery Planning and Asset Management).

First Steps: If there is no formal Change Management Process in place, take the following steps immediately:
1. Identify a management owner to champion the process
2. Inform all impacted areas of the new Change Management Process (initially, there may well be delays in implementing changes as a result of the greater planning inherent in the process)
3. Start small by having only a subset of the infrastructure group (perhaps the Help Desk, network, and systems administration groups) participate in the first phase

4. Establish a written process using the guidelines mentioned above and the form provided in the example below
5. Launch a weekly meeting to review changes to the infrastructure made during the prior week and those planned for the coming week
6. When the process is working effectively, expand to other components of the infrastructure and ultimately to the application development and customer stakeholders

Example: A sample Change Management Request form is provided in Figure 1 below.

Production Change Request (PCR)

Date: *Date the form is started*	Who to contact (include pager, cell or home phone#): **Developer:** *name and contact info* **QA Engineer:** *name and contact info*			
Change Requester *Person requesting the change*	**Phone #** *Requester's #*	**Project Title** *Project Reference Name*		**Change Control #** *Obtained from the Change Control Manager*
QA Engineer *Specialist assigned to complete the PCR for Requester*	**Phone #** *Specialist's phone number*	**Pager #** *Pager and cell phone number*	**Proposed Date & Duration** *When to start and how long the change will take to complete*	**Proposed Time** *When the change will be implemented*
Business Benefits: Describe business benefits resulting from change.				
End User Impact: Describe downtime and functionality of change from end member perspective.	*What will the end member see as the change is being implemented? What is the impact to the current system as it is modified?*			
Summary of Change: Describe for technical peers. Attached Release Check List, or project plan. Include Prerequisites to the change.	*Detailed description of the change. Attach sheets as required and specify the attachment in this block. Is this a fix of a previous error? Add any prerequisites that must be in place before the change can be performed.*			
Risk Analysis & Contingency Plan: What happens if change fails and what is recovery plan?	*Detailed statement of the risk to doing the change. Detailed statement of what will have to occur if the implementation of this change is not successful. Where are the backup tapes, other hardware, or technical expertise that will return the system to the as-before condition?*			
How will members and management be notified?	*Details on the notification process and proposed text for that message.*			

Approvals *Print Name Signature Date*			
Immediate/Functional Manager			
Change Control Manager			
Customer Support			
QA Manager			
Other Manager / Vendor Rep			

Director of Product Support or QA *Circle the applicable one*			
QA Verification			
QA Engineer			

QA Test results: *Was the testing completed satisfactorily? Who did the testing?*

Released to Production			
Date:	*Time:*	*Print Name:*	*Signature:*

Upon Completion of Change

Final Review of Project
Comments(Satisfactory/failed, details): **What happened? Was the implementation completely satisfactory? Did the implementation go perfectly? Is the system that was changed up and running perfectly?**

Production Installation Sign-Off		
Date: **Date/time of change**	*Print Name:* **The installation/change implementer**	*Signature:*
Manager of QA		
Date:	*Print Name:*	*Signature:*

Figure 1 – Change Management Request Form